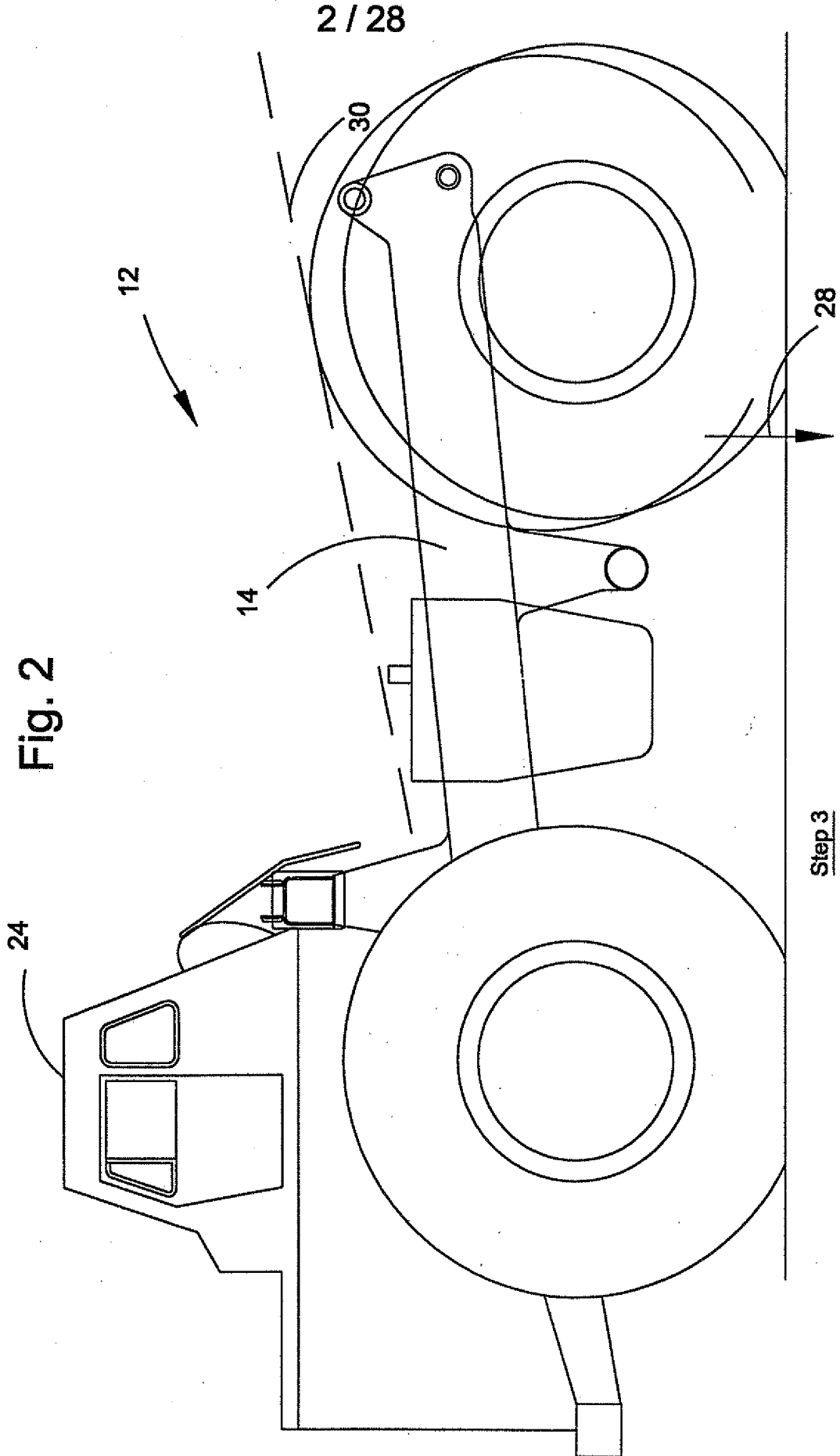
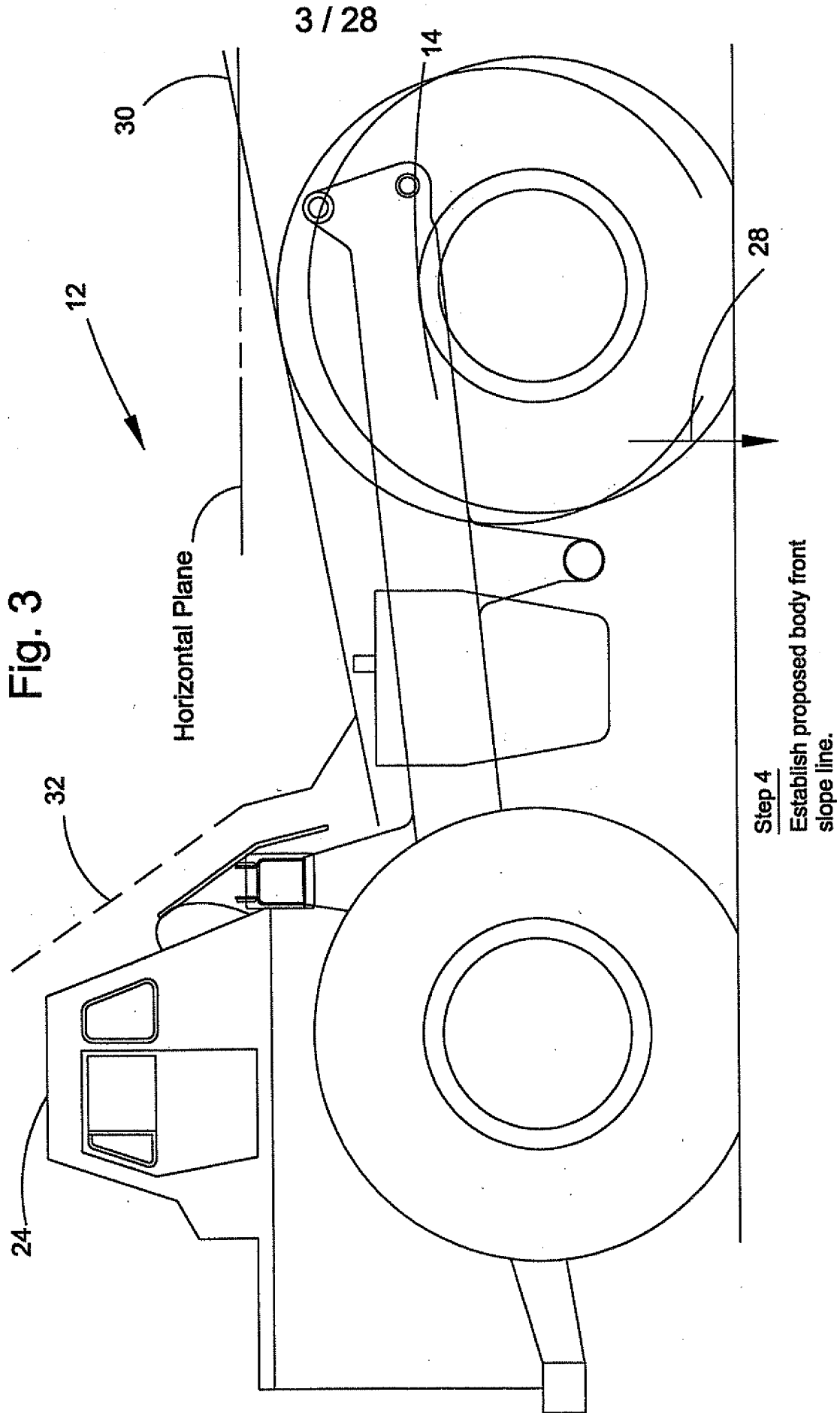
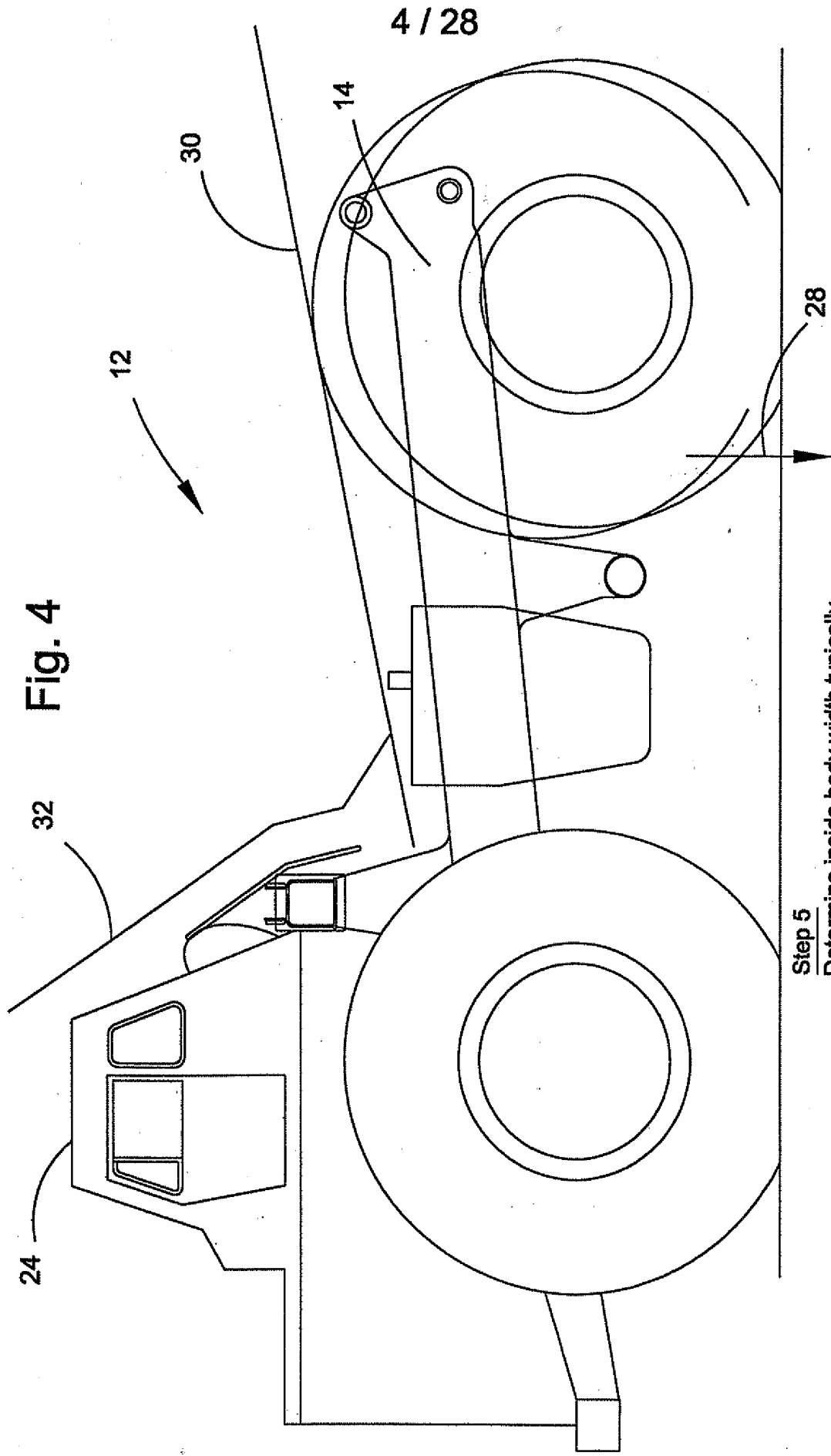


Step 2  
Using truck chassis empty and  
loaded weights establish "load"  
center of gravity



Step 3  
Establish proposed body floor line.



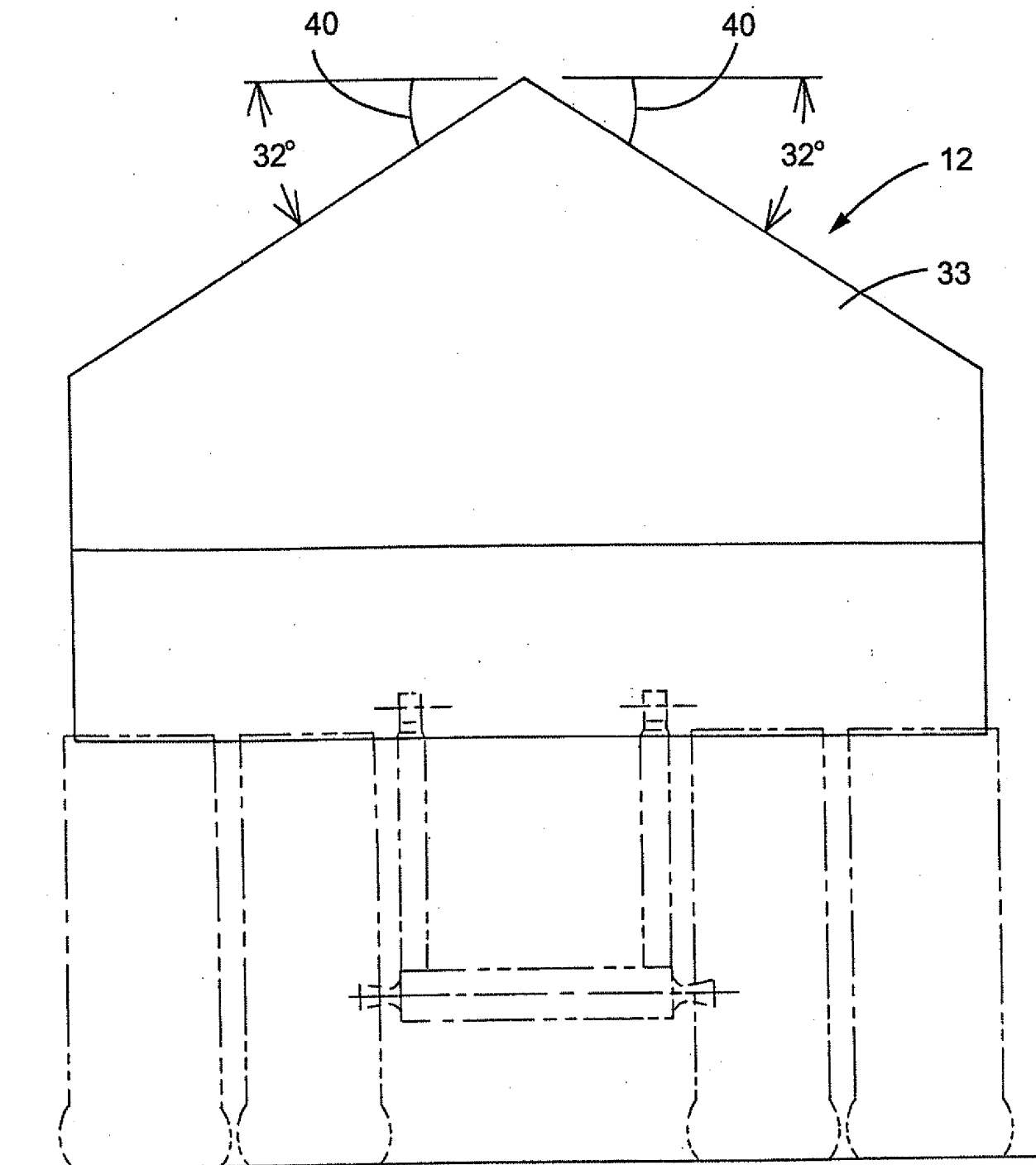


**Step 5**

Determine inside body width typically  
90 - 115% of the overall rear axle tire width  
or as set by the truck chassis manufacturer.



6 / 28



Step 6

Fig. 6

7 / 28

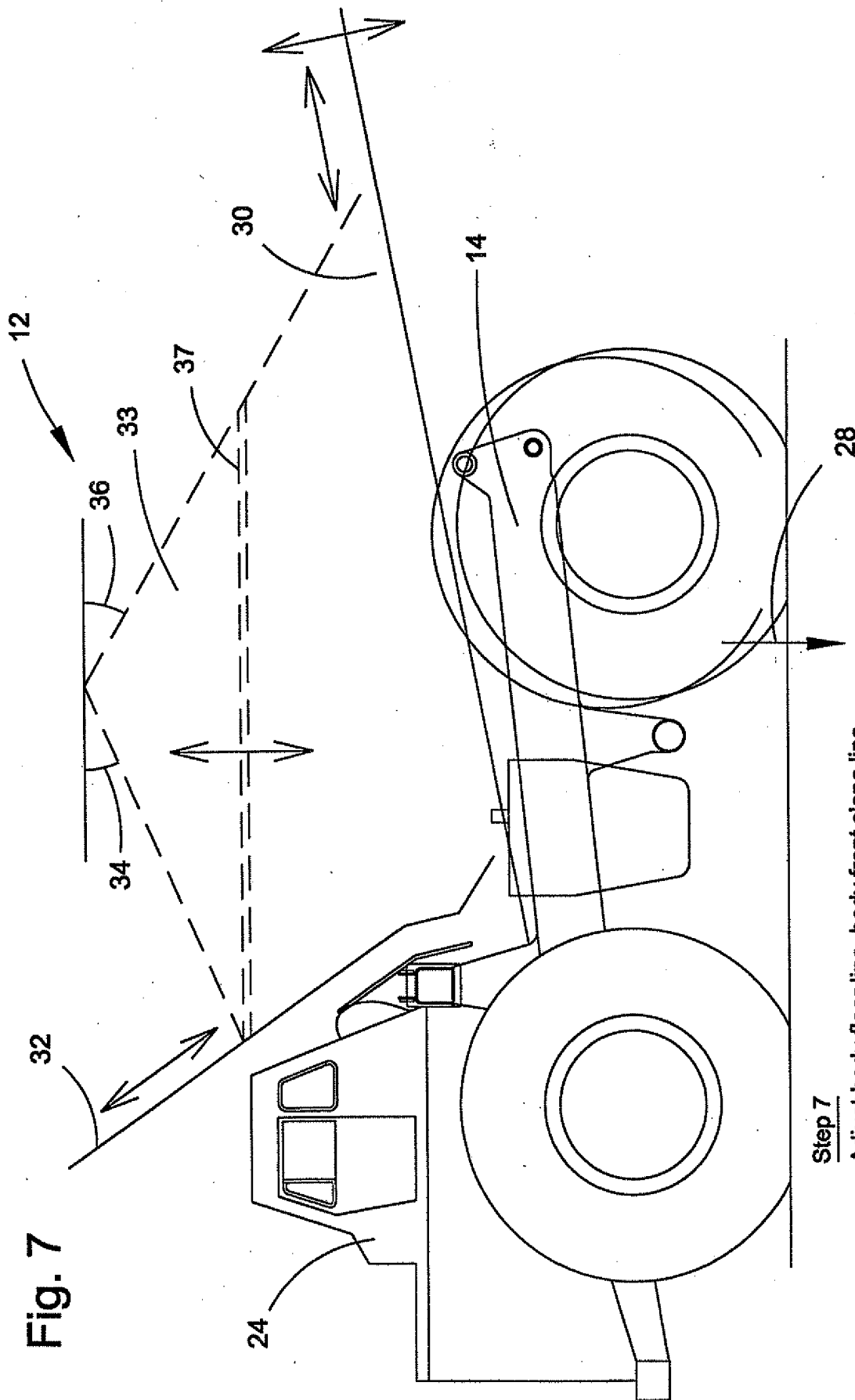


Fig. 7

**Step 7**  
Adjust body floor line, body front slope line and body sidewalls as needed to obtain the correct center of gravity of Step 2.

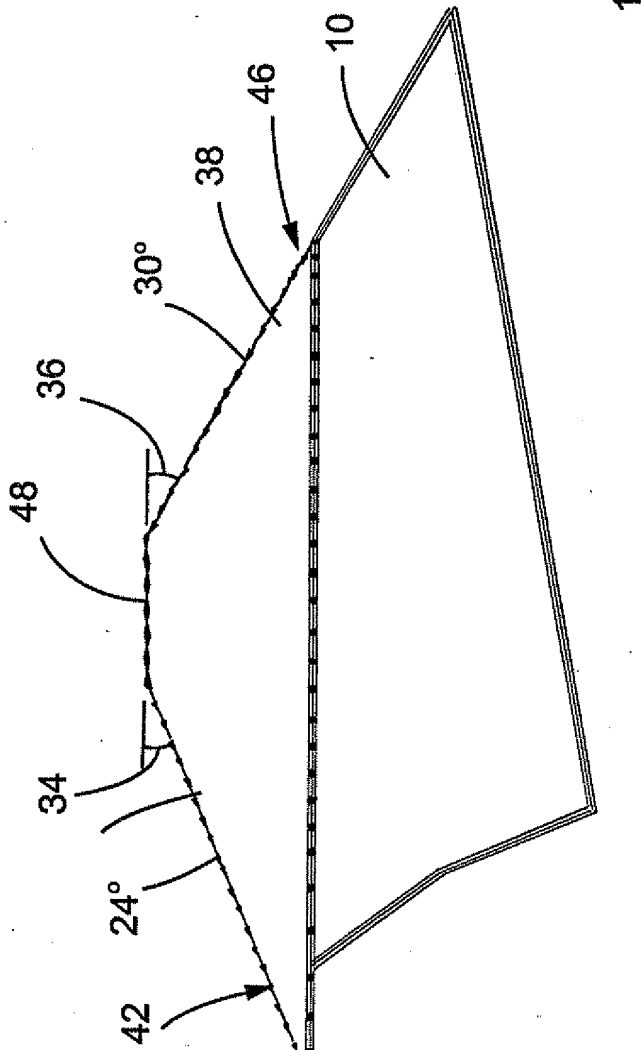


Fig. 8A

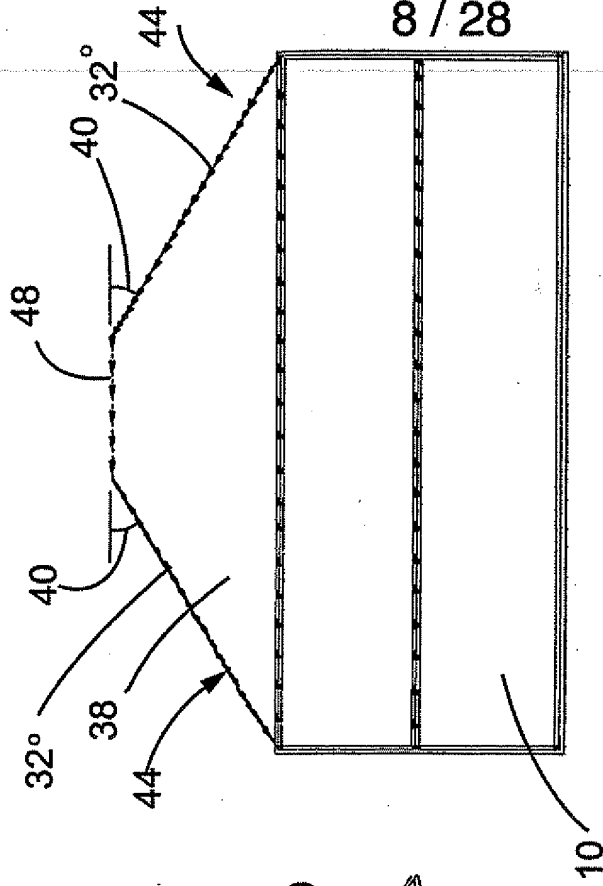
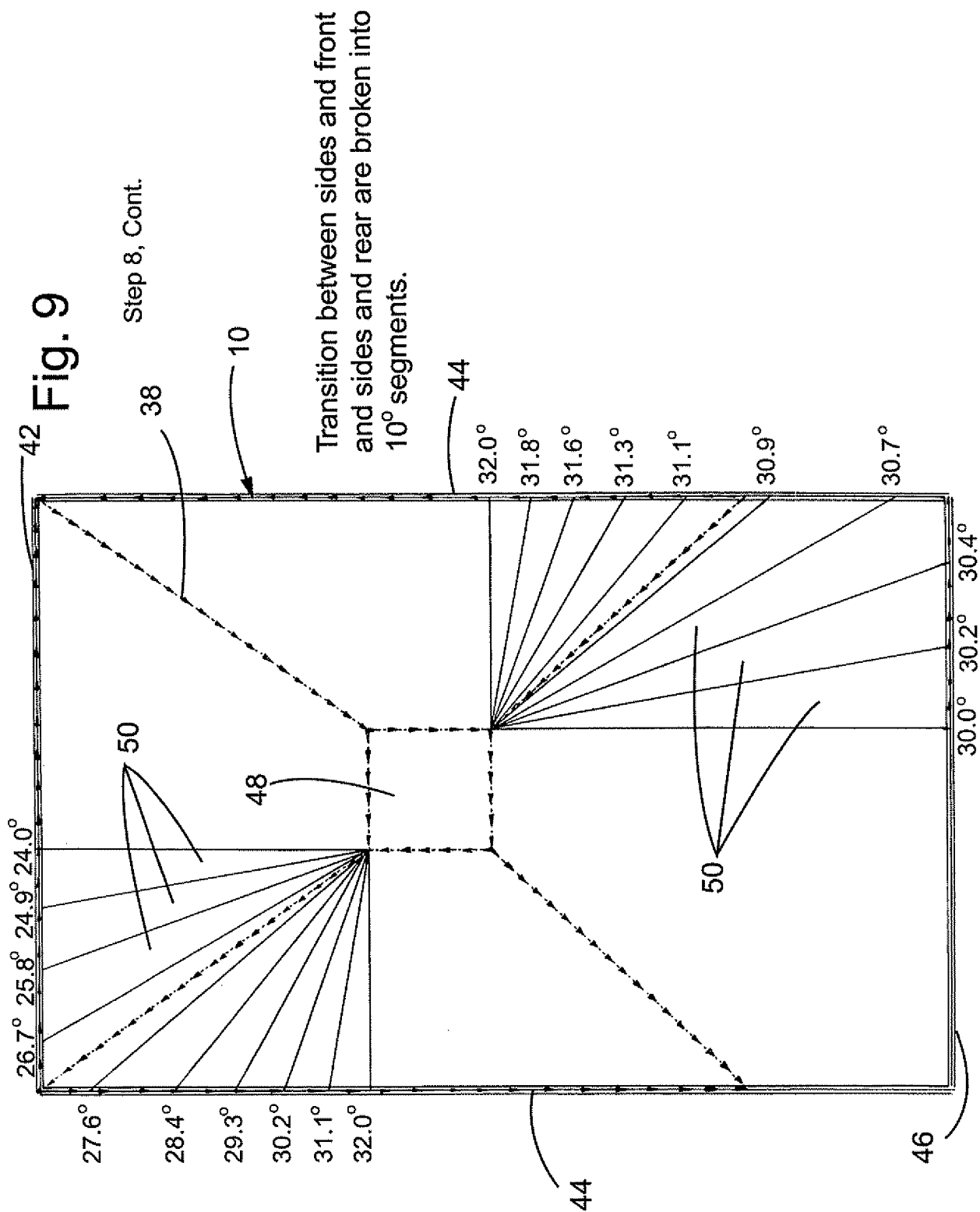


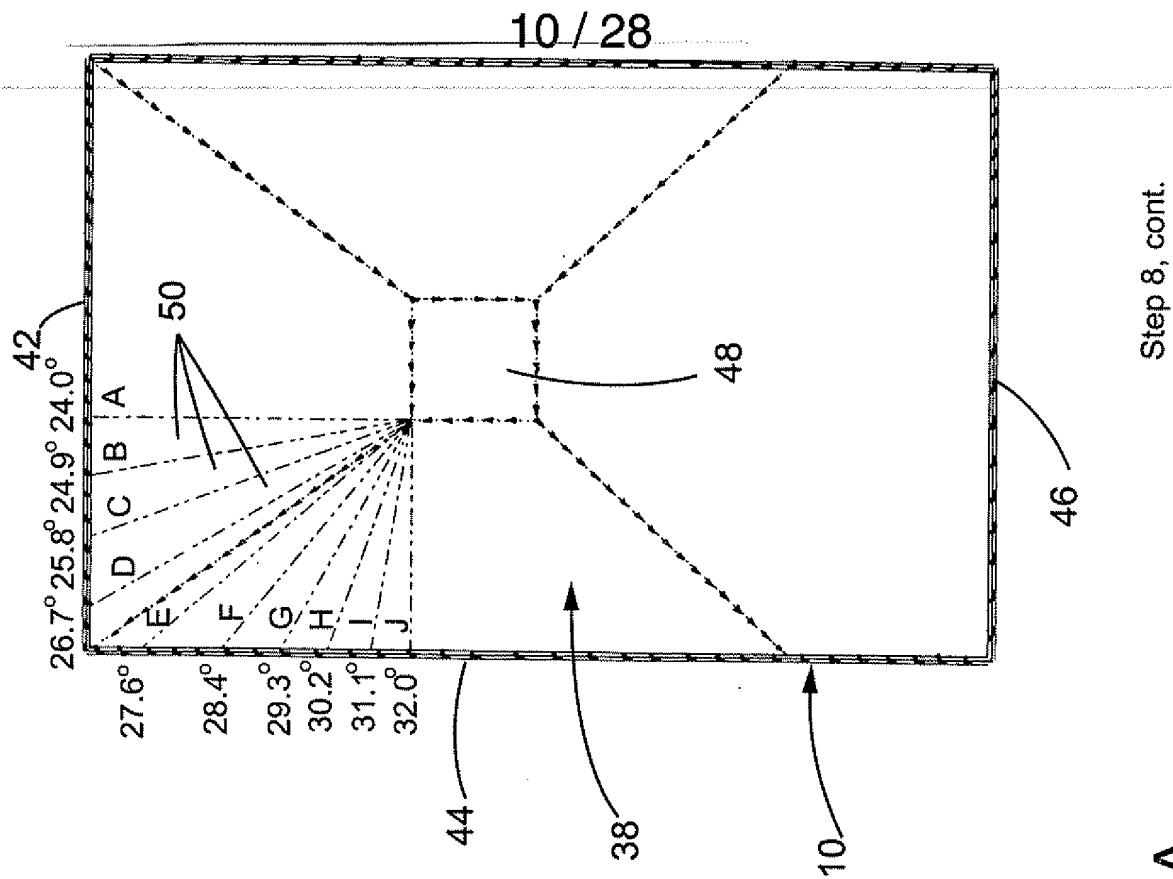
Fig. 8B

Step 8

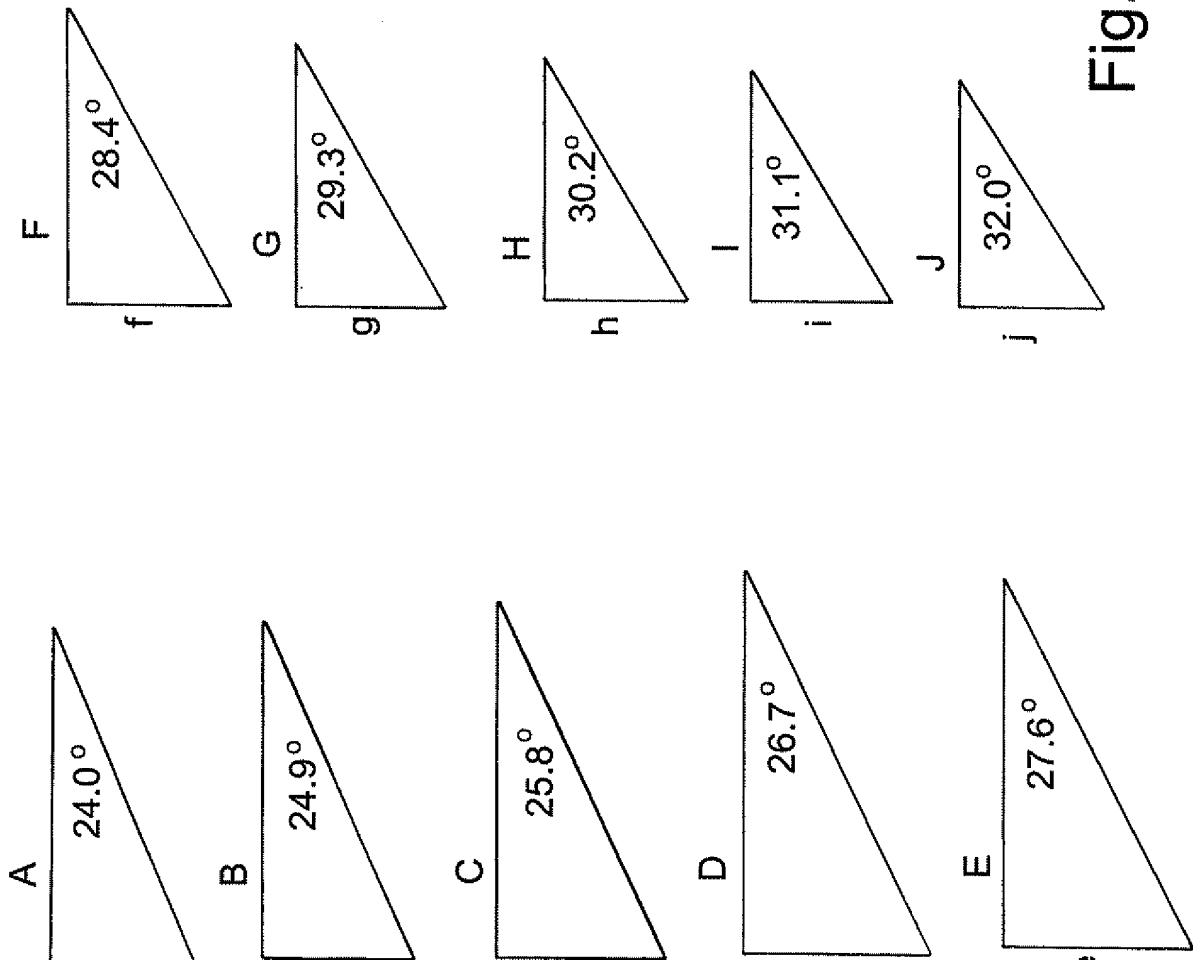
Based on the specific customer information and the resulting load profile, a three dimensional model is developed which incorporates the actual side, front and rear angles of material repose and corner voids.

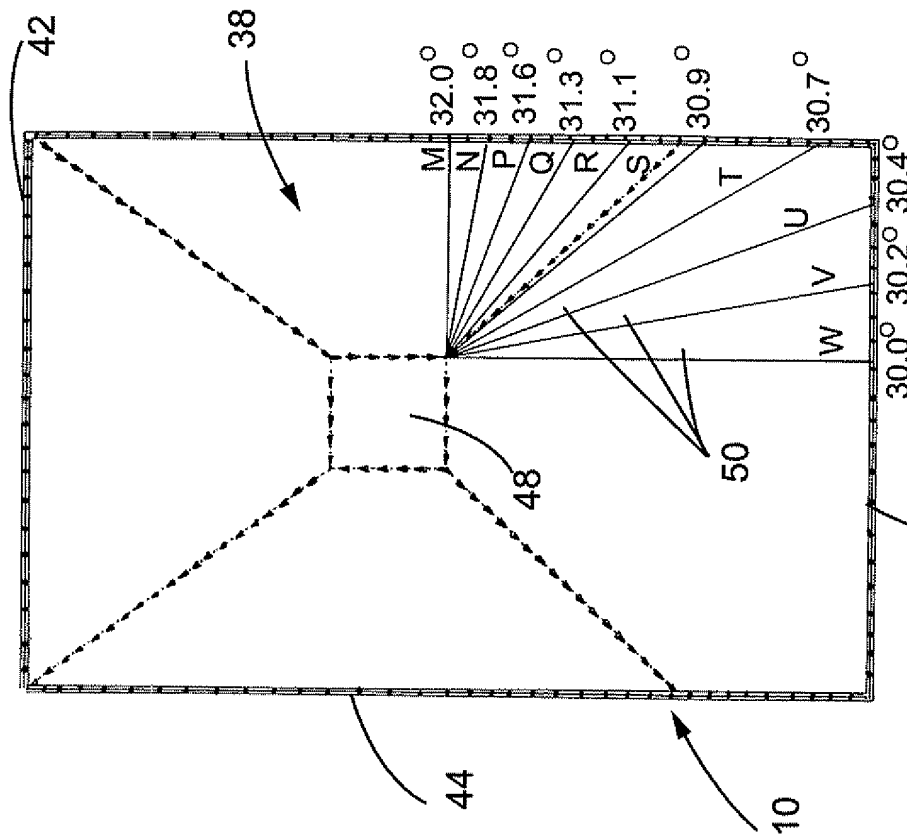
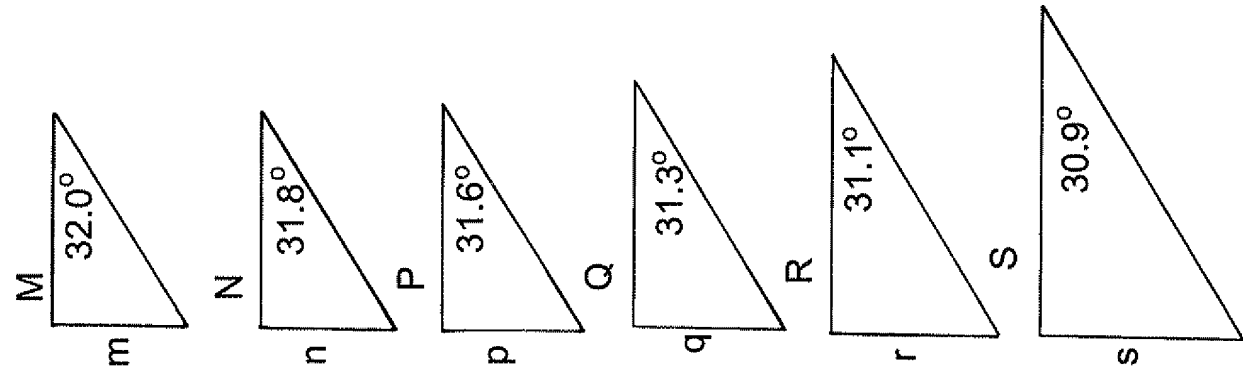
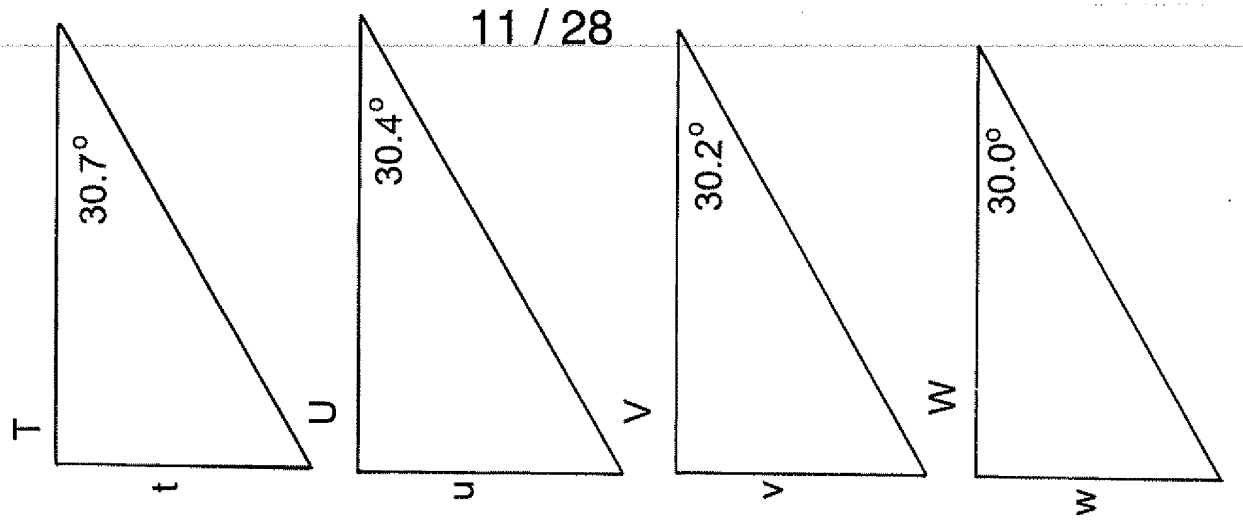






**Fig. 10A**





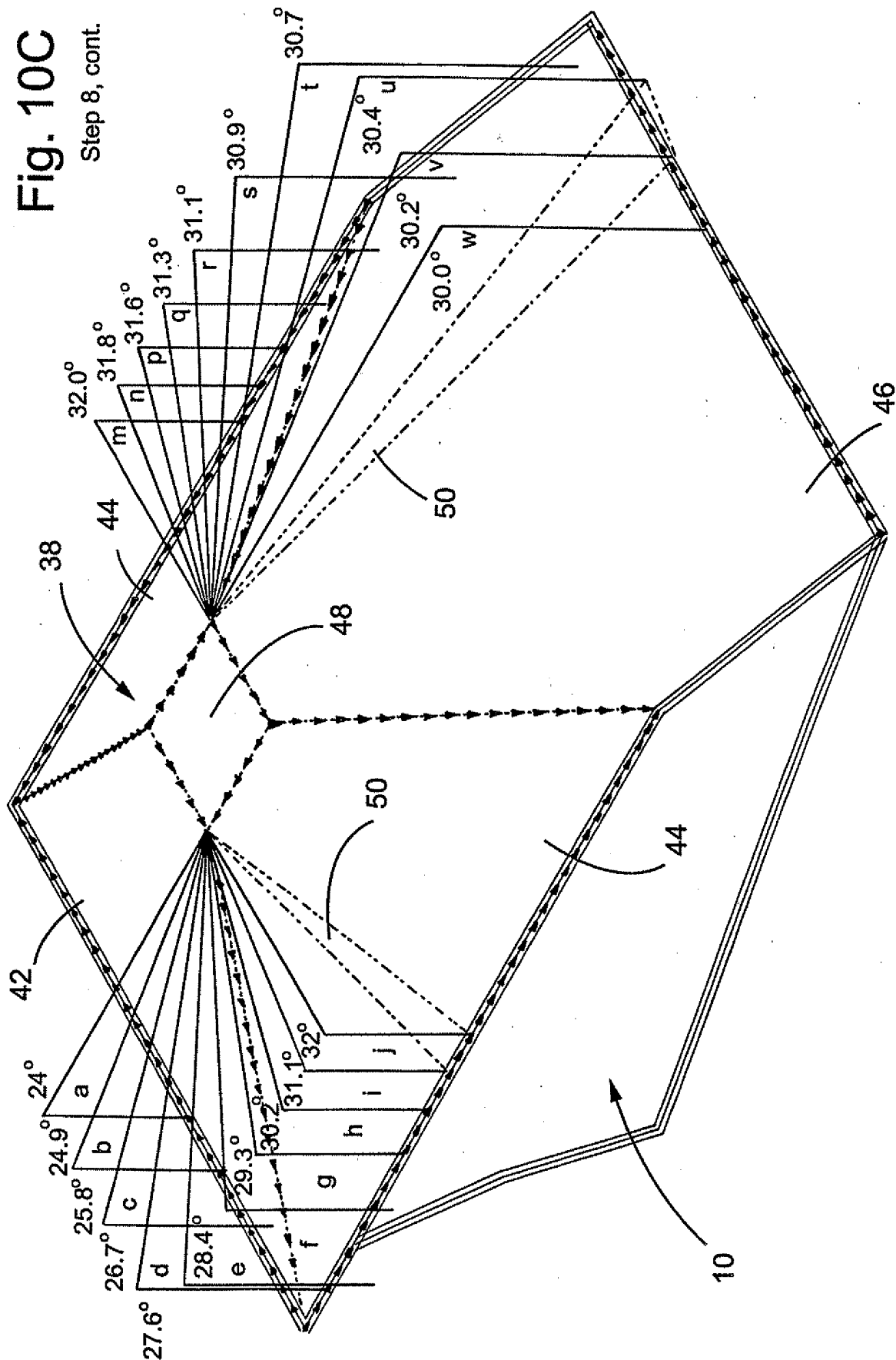
46  
STEP 8, CONT.

Fig. 10B

12 / 28

Fig. 10C

Step 8, cont.



13 / 28

Fig. 11

Step 8, cont.

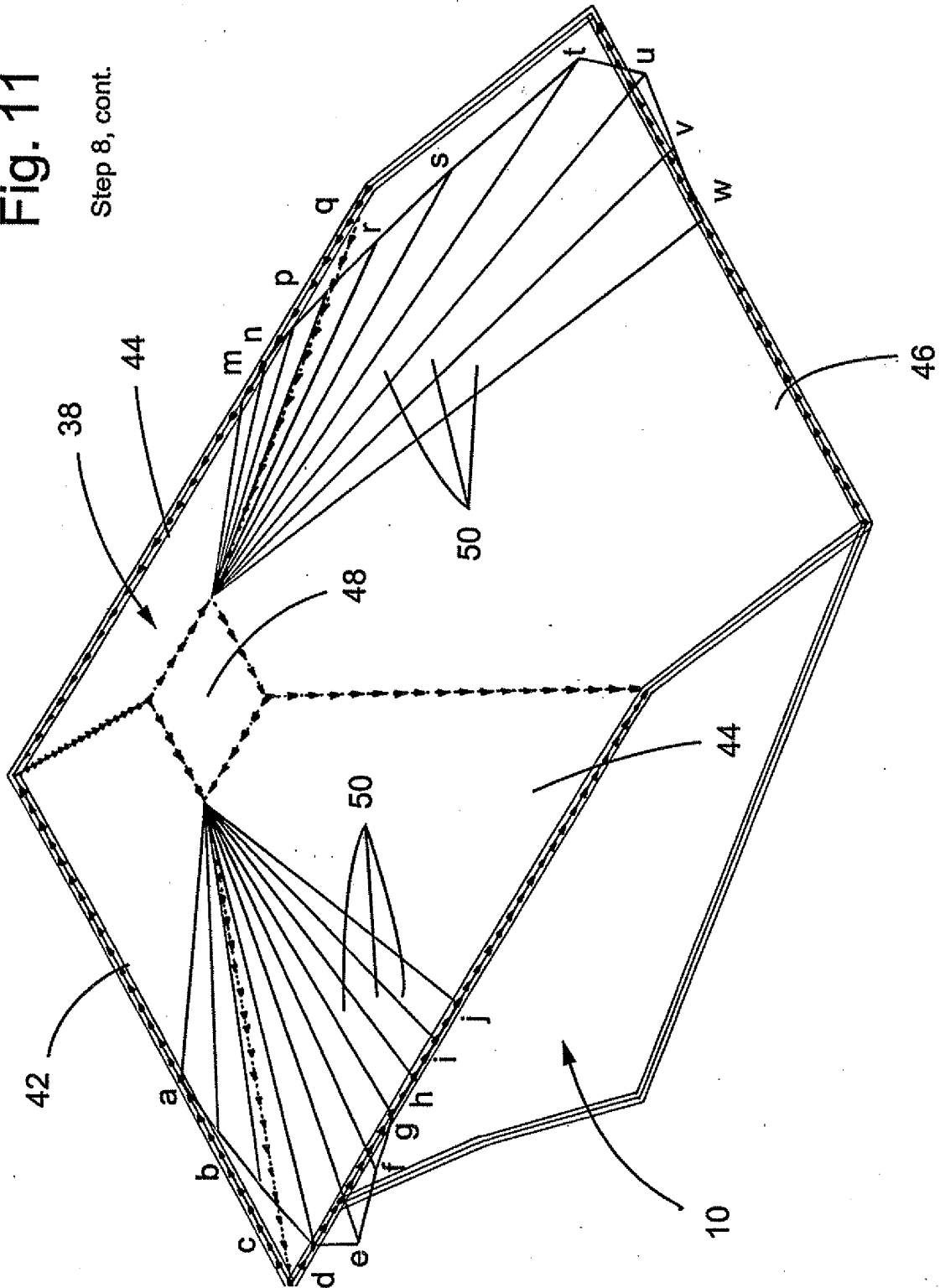
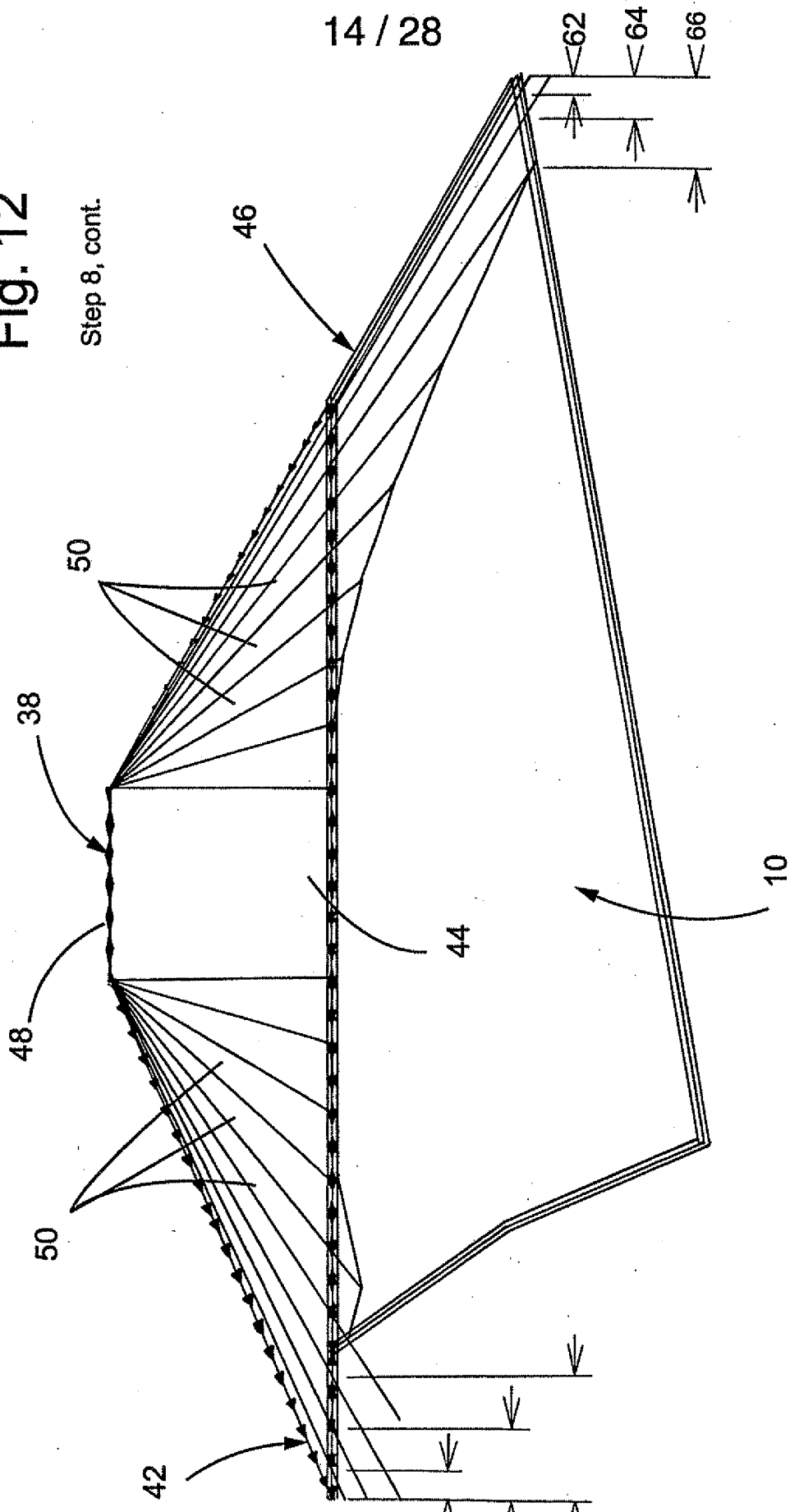


Fig. 12

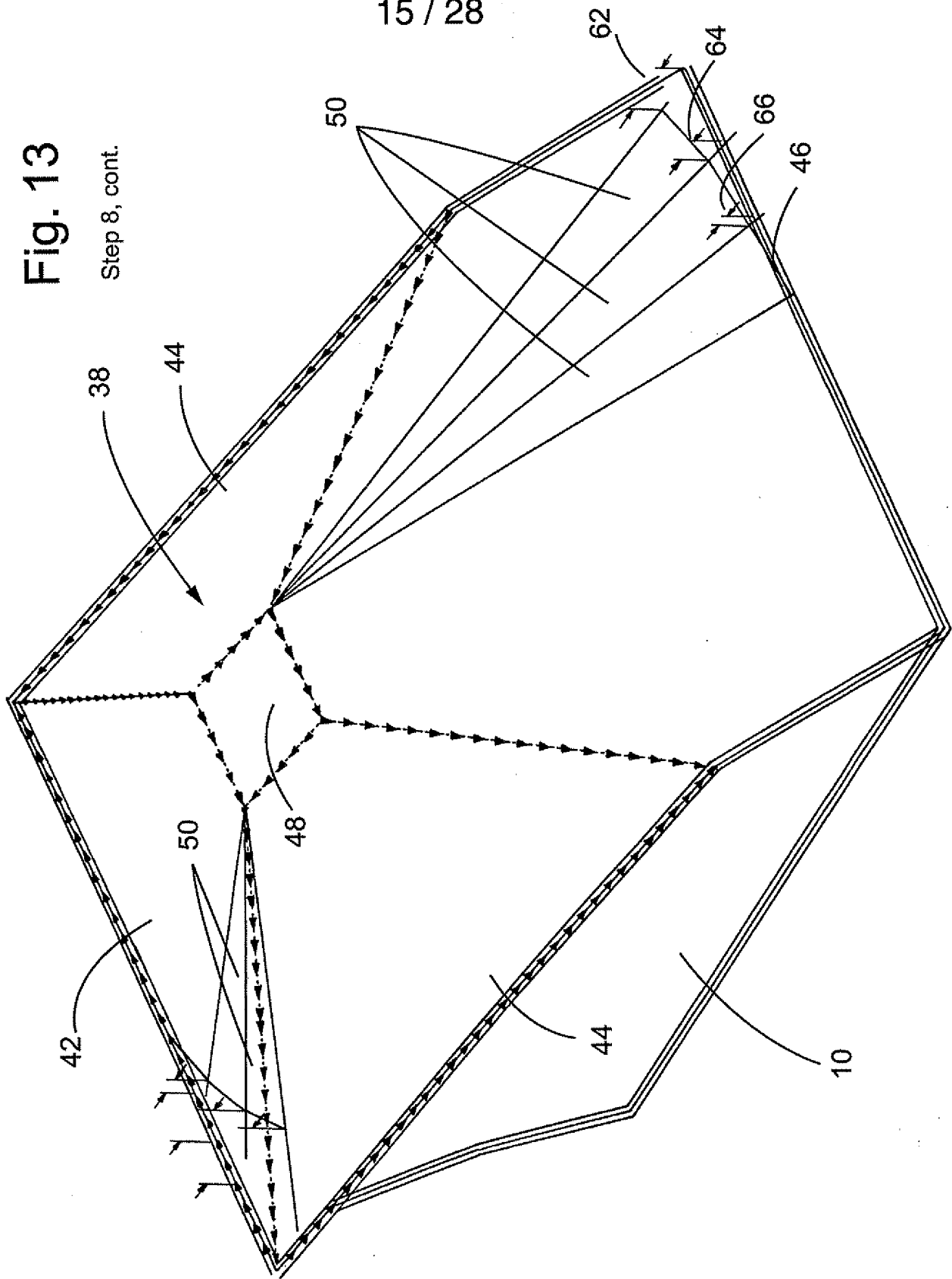
Step 8, cont.

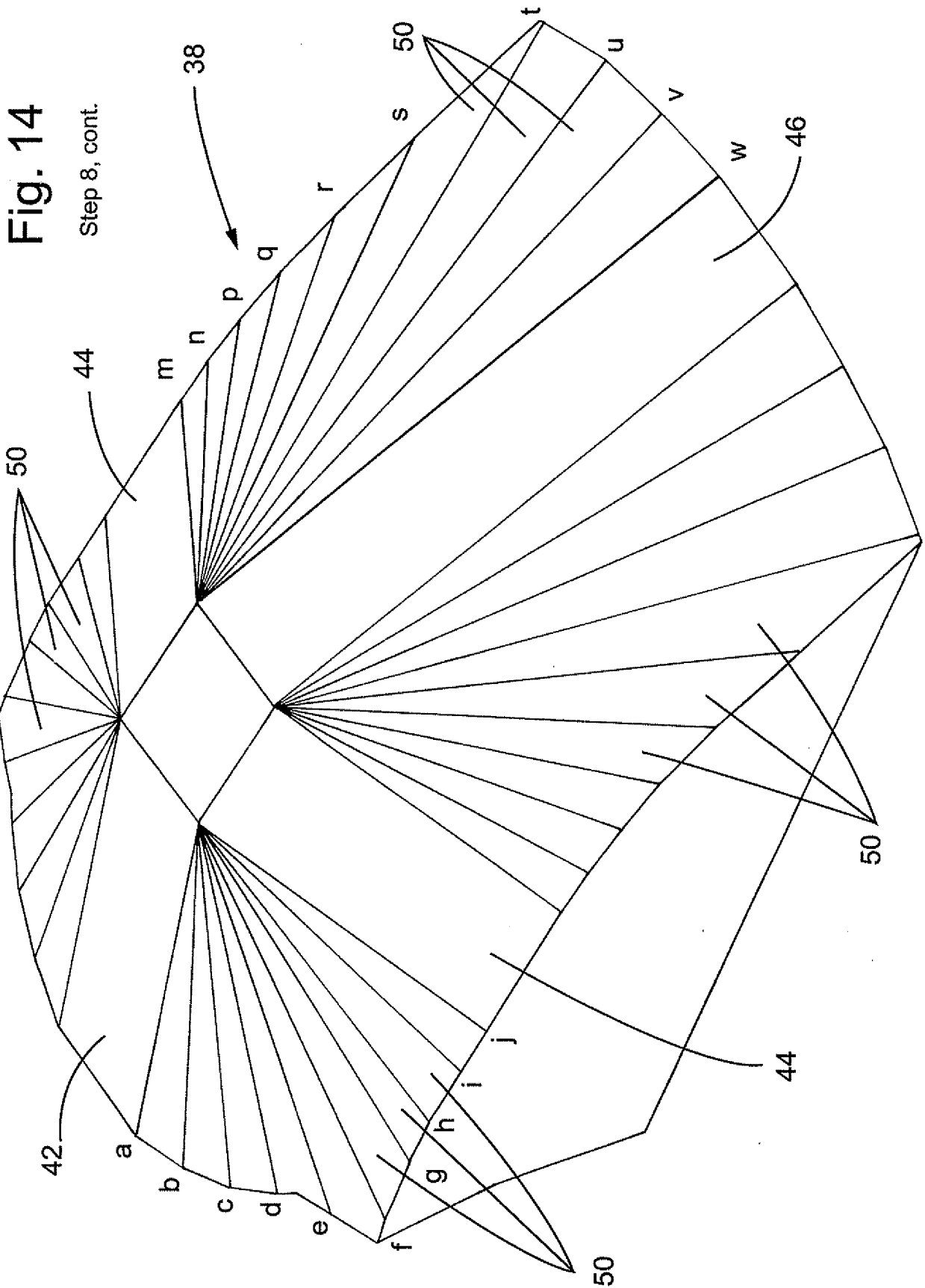


15 / 28

Fig. 13

Step 8, cont.







17 / 28

Fig. 15

Step 8, cont.

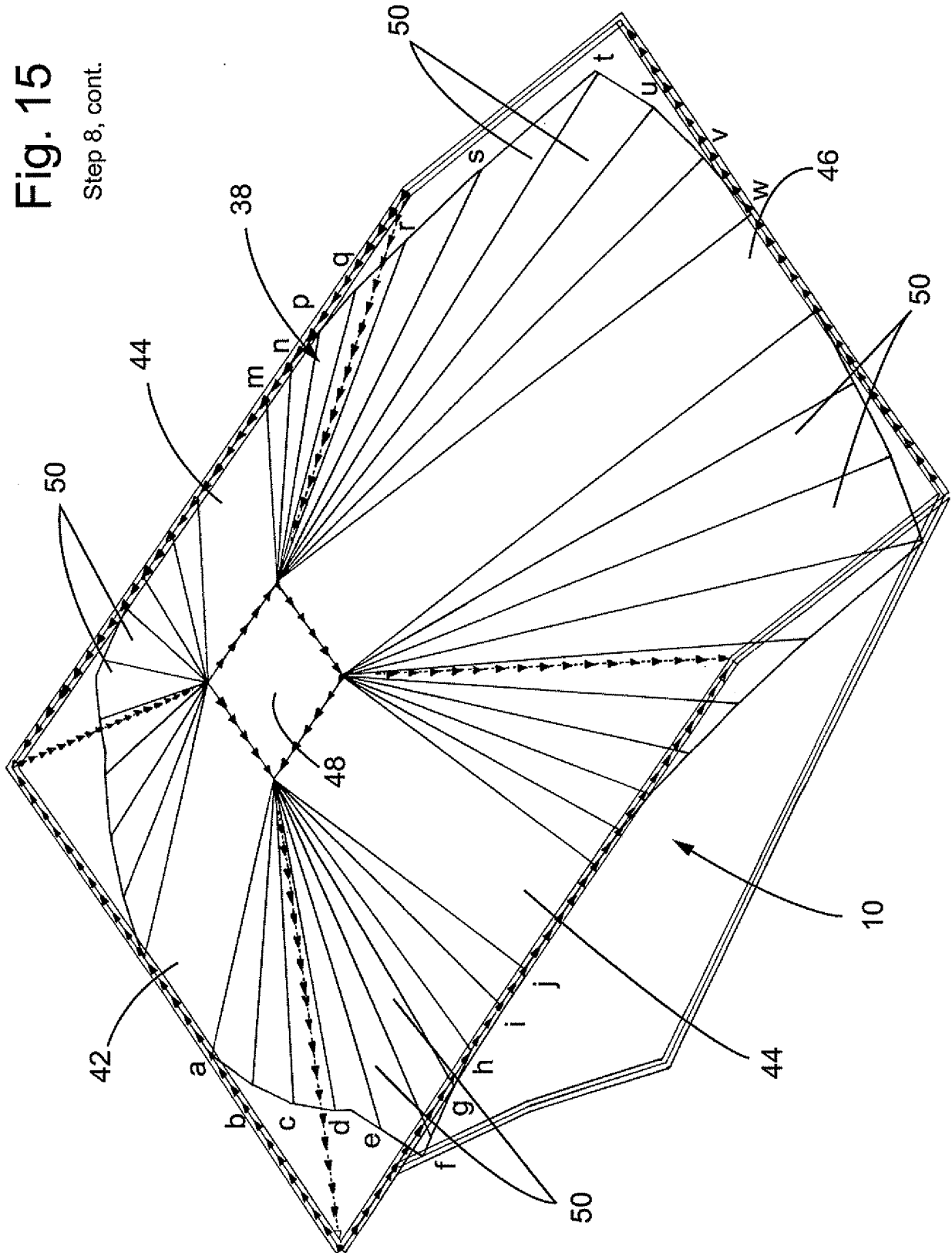
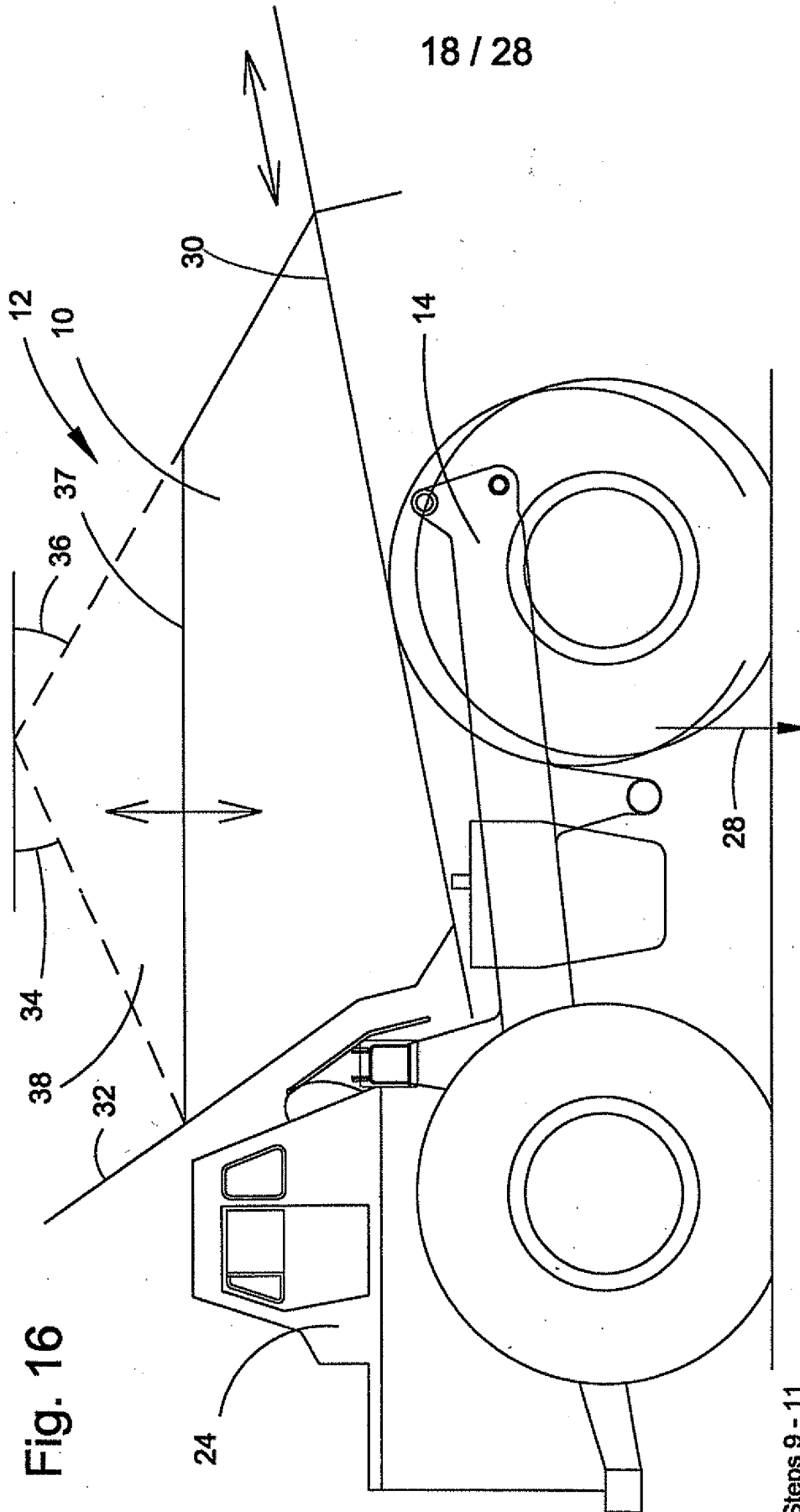


Fig. 16



18 / 28

## Steps 9 - 11

The center of gravity of the three dimensional load model is determined and then compared to the correct center of gravity of the load as determined in Step 2.

If the center of gravity of the three dimensional load model is not properly positioned, then a new three dimensional load model is created based on the customer specific data and through adjustment of the design parameters of the dump body in an iterative process so that the load center of gravity of the load model is placed in the desired position.

19 / 28

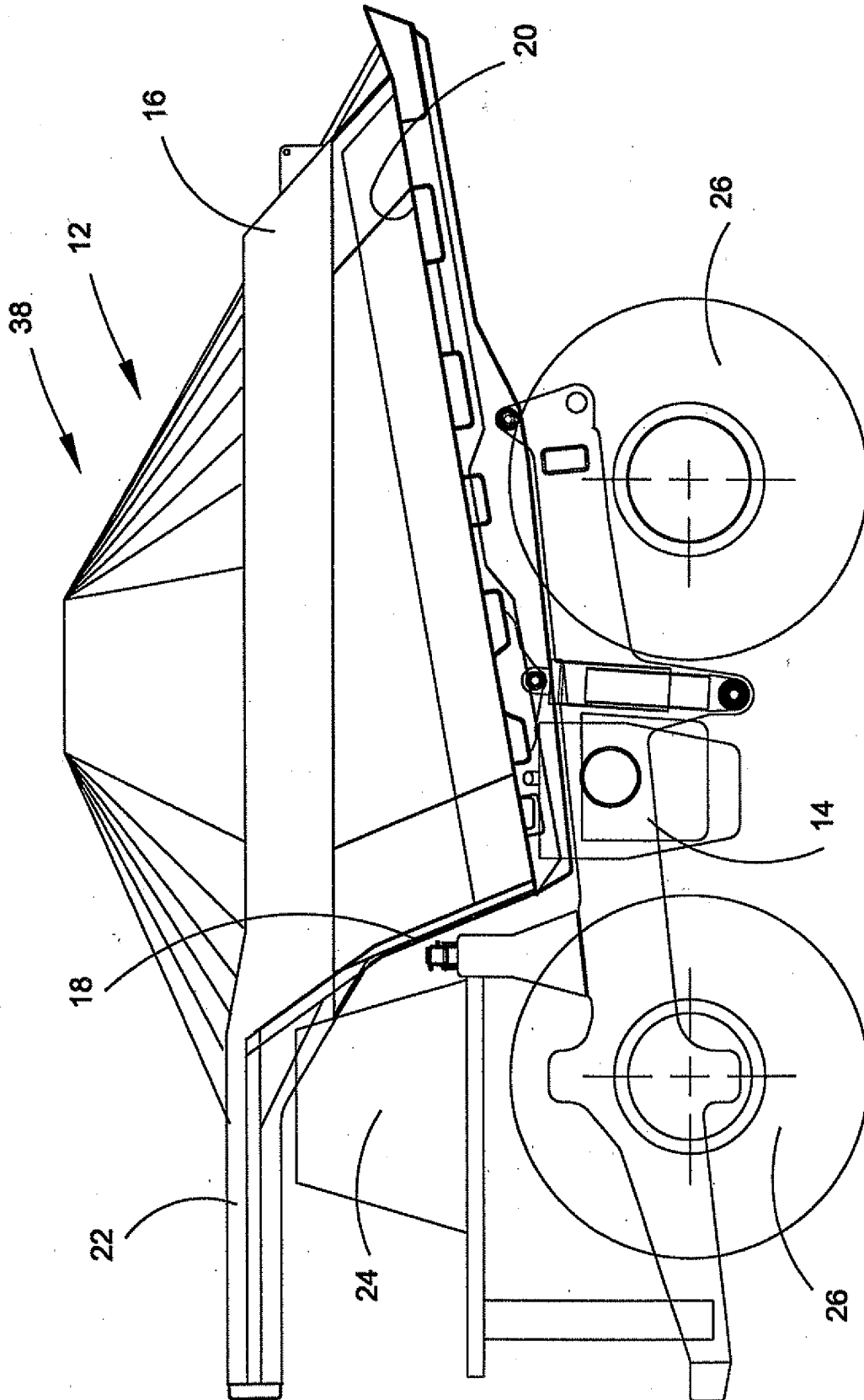


Fig. 17

Fig. 18A

**Step 1****A. Determine Material Density**

**B. Create extensive photographic record of customer mining site.**  
including photos of loaded trucks from the front, rear, sides and corners at various loading locations; at various haul road points and truck dumps.

**C. Enlarge selected photographs for detailed analysis of:**  
1. The material angles of repose in the loaded truck bodies;  
2. The required rear truck body free board; and;  
3. The effect individual loading tools have on the final profile.  
4. Loading corner voids.

**Step 2**

**A. Calculate correct volumetric load and load center of gravity using:**  
1. Gross Vehicle Weight Distribution (typically 1/3 - 2/3 or 1/2 - 1/2)  
2. Empty Vehicle Weight Distribution as measured/weighted.

**B. Calculate correct volumetric load using:**  
Gross Vehicle Weight minus Projected ( with body) Empty Vehicle Weight divided by Material Density Per Cubic Measure.

**Step 3**

Establish proposed body floor line at a set minimum distance above chassis frame at front of body and set a minimum distance above chassis/body pivot and/or tires at rear of body.

**Step 4**

Establish proposed body front slope line at a set minimum distance back from chassis deck/engine compartment at bottom of front slope and at a minimum distance back from the chassis cab/chassis deck at the upper portion of the front slope.

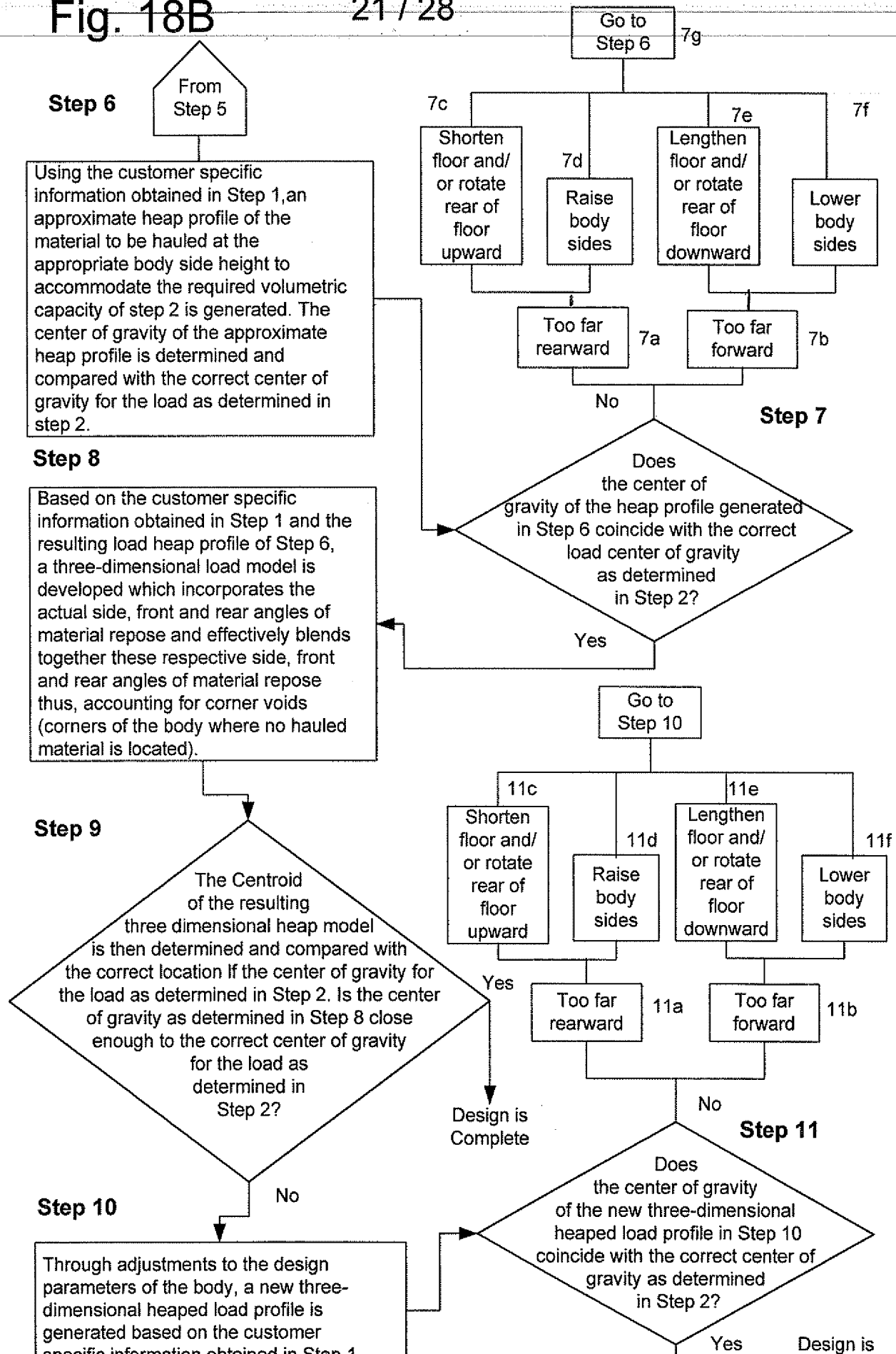
**Step 5**

Establish the proposed inside body width, 90 - 115% of overall rear axle tire width, or as established by the truck manufacturer.

To  
Step 6

Fig. 18B

21 / 28



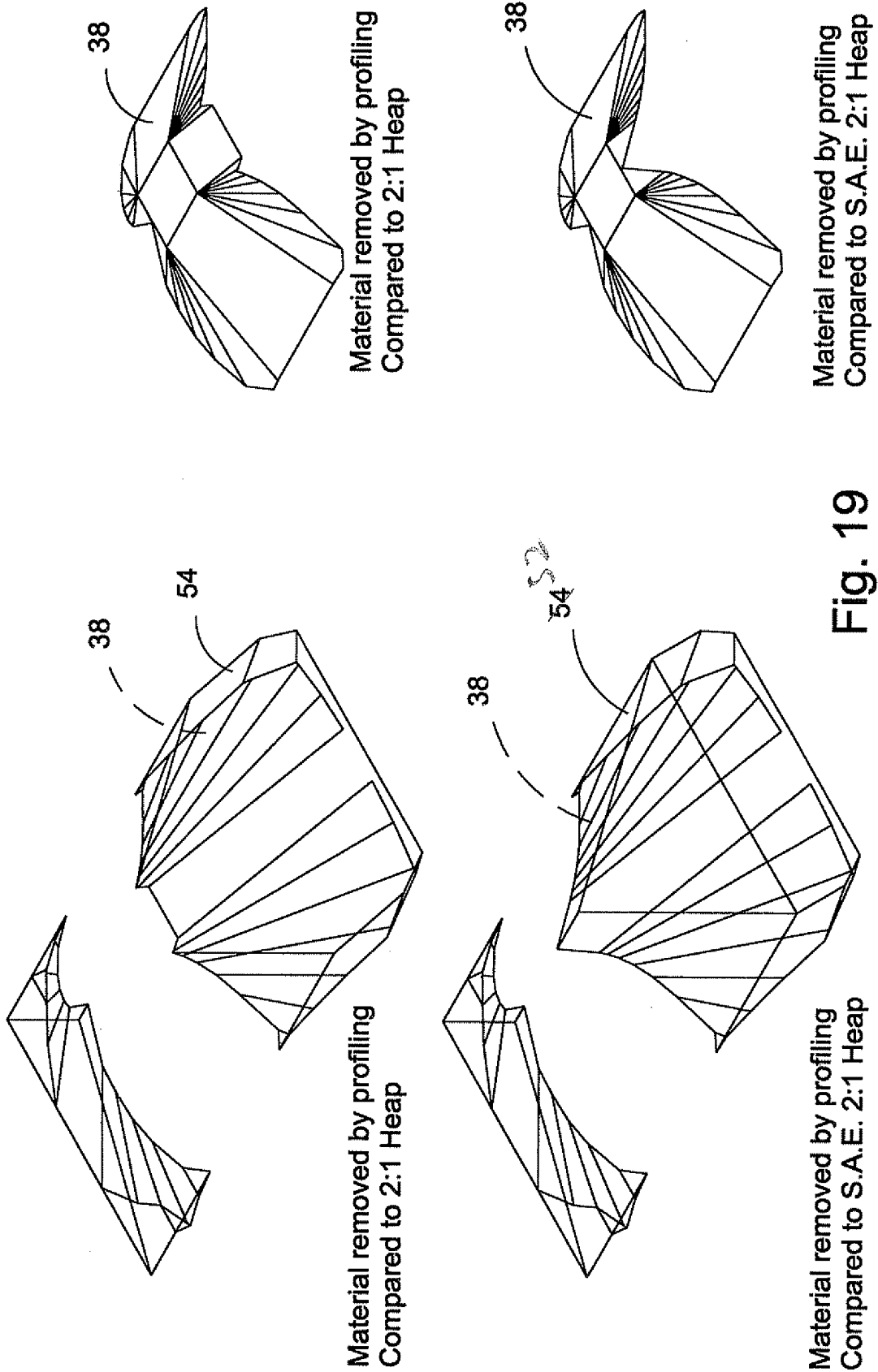


Fig. 19

23 / 28

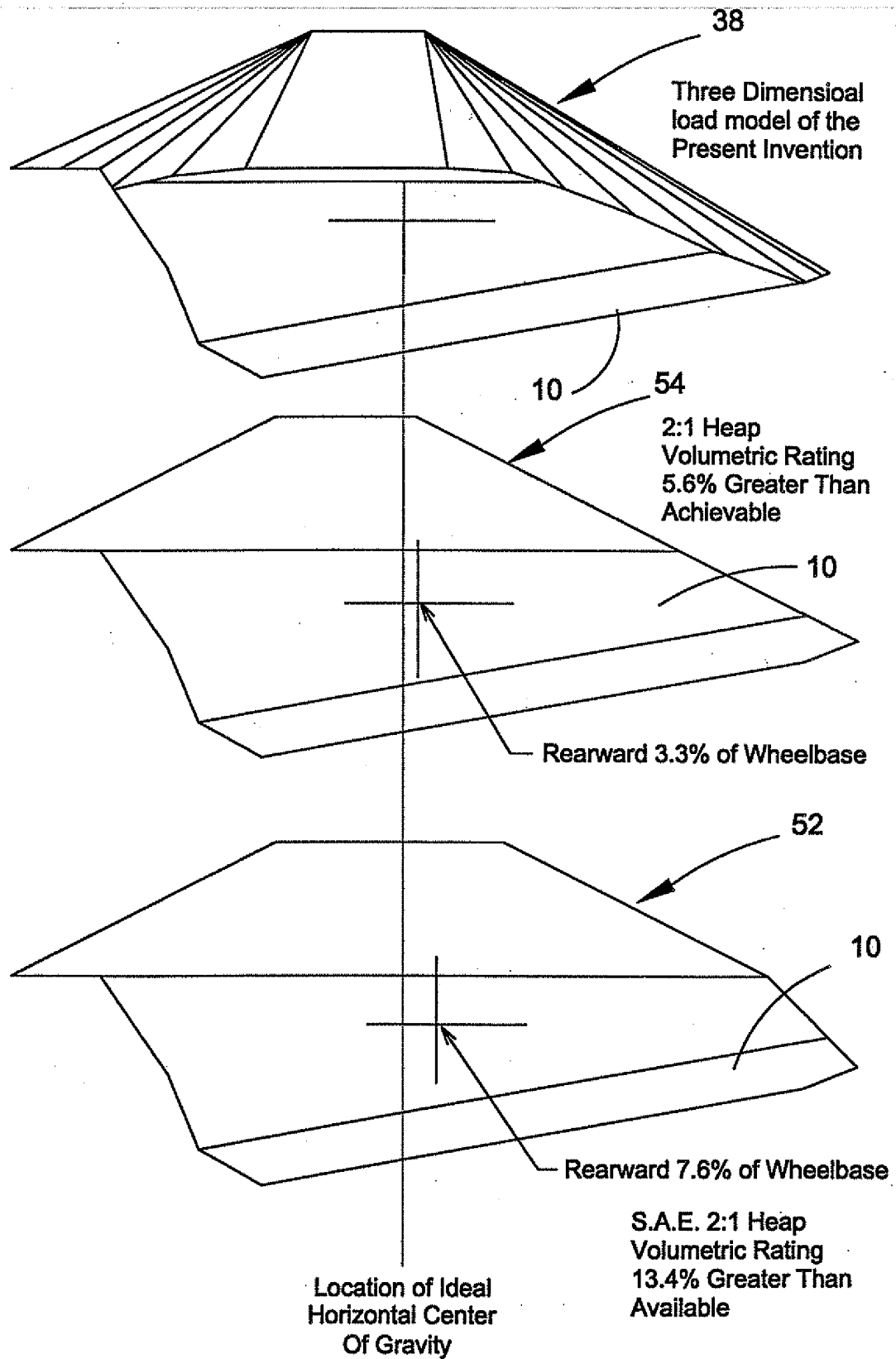


Fig. 20

24 / 28

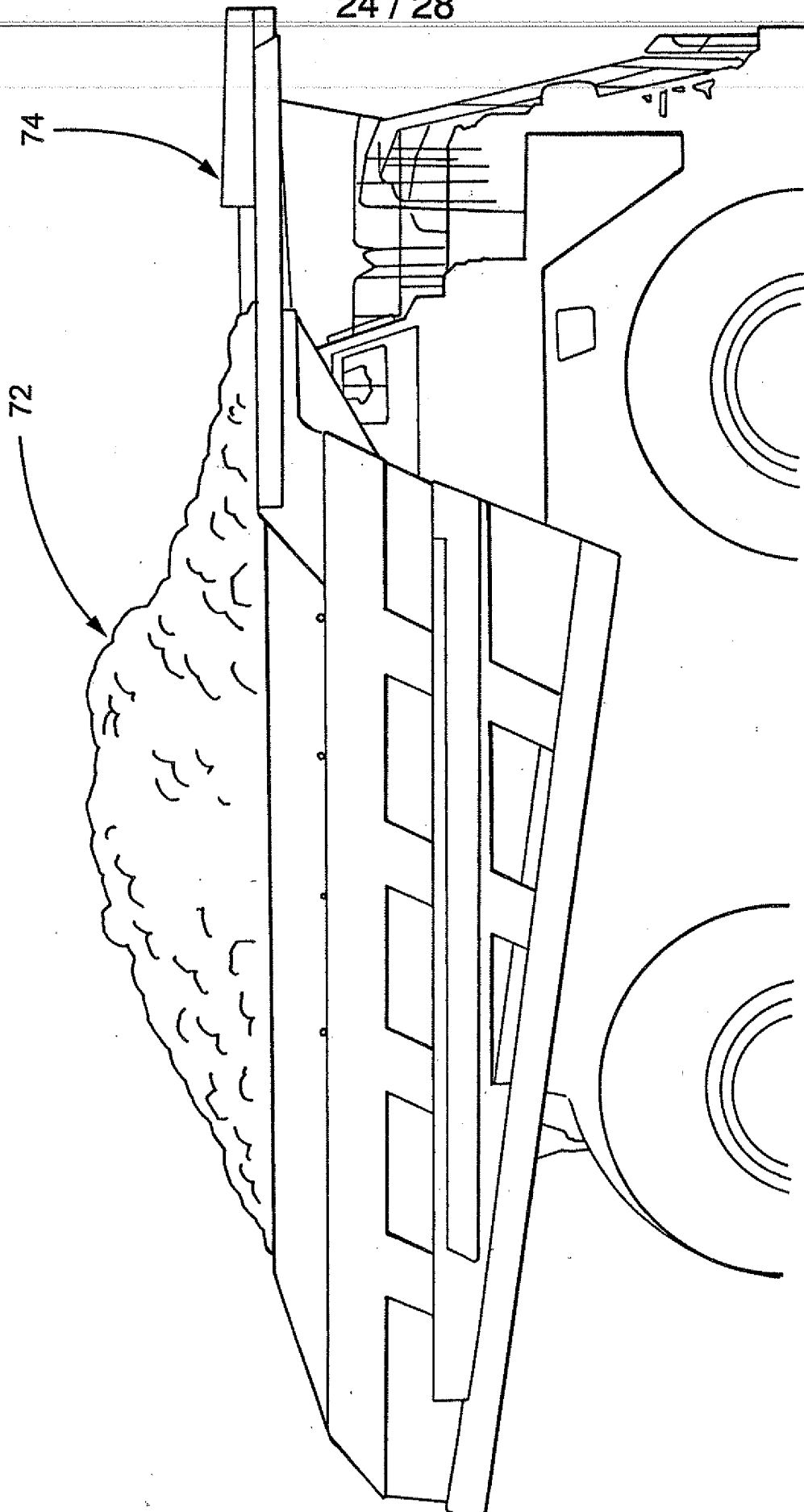


Fig. 21



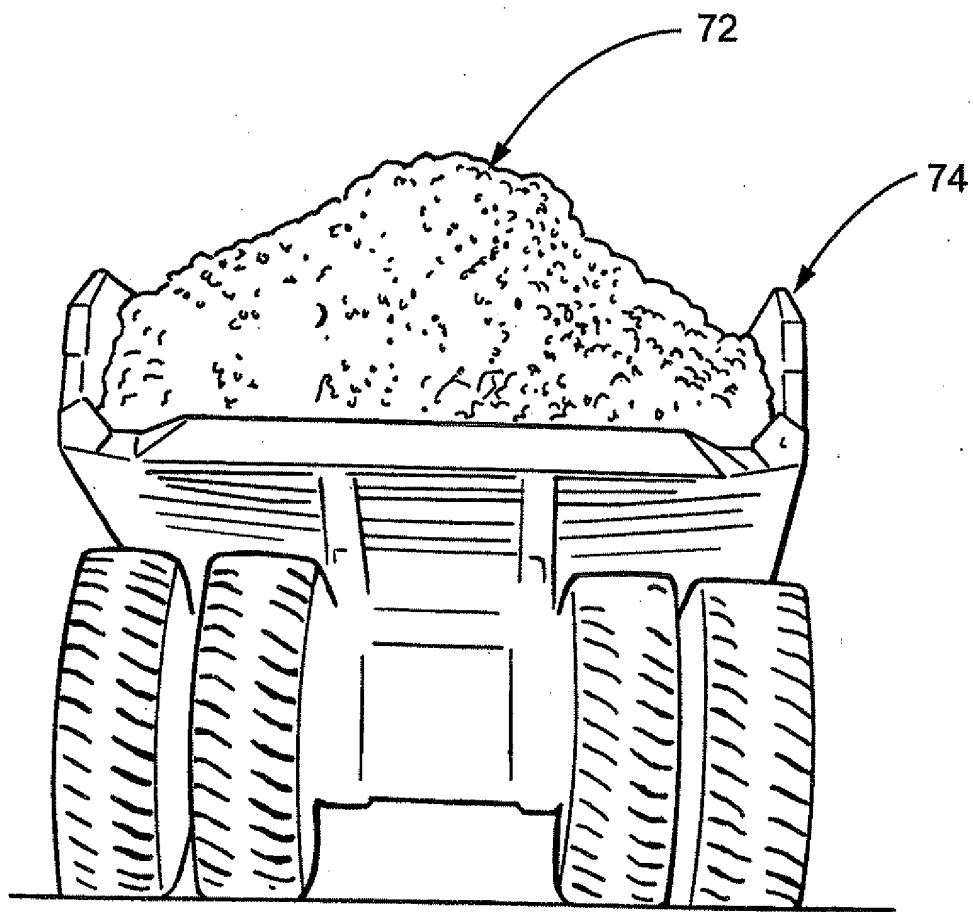


Fig. 22

26 / 28

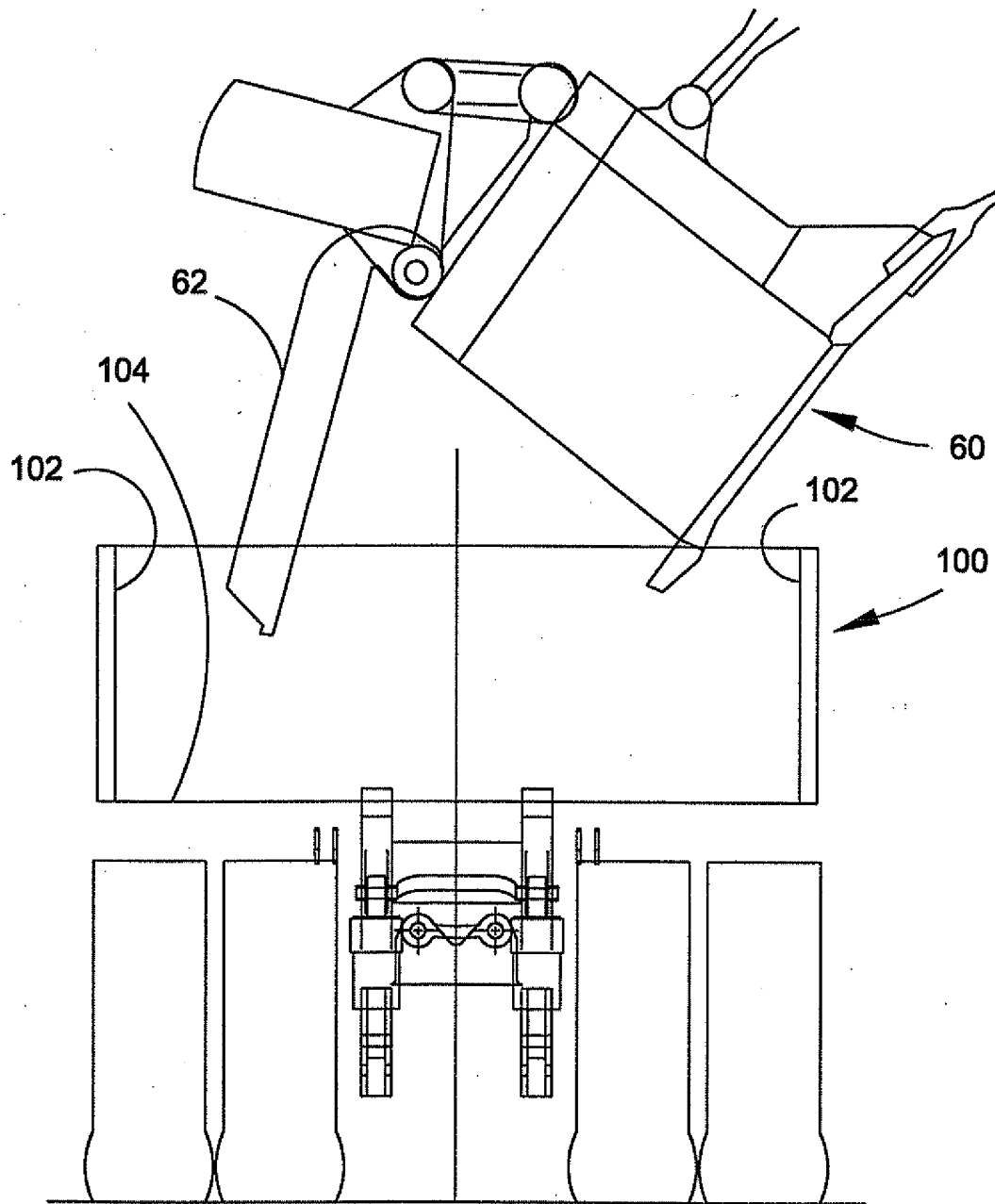


Fig. 23

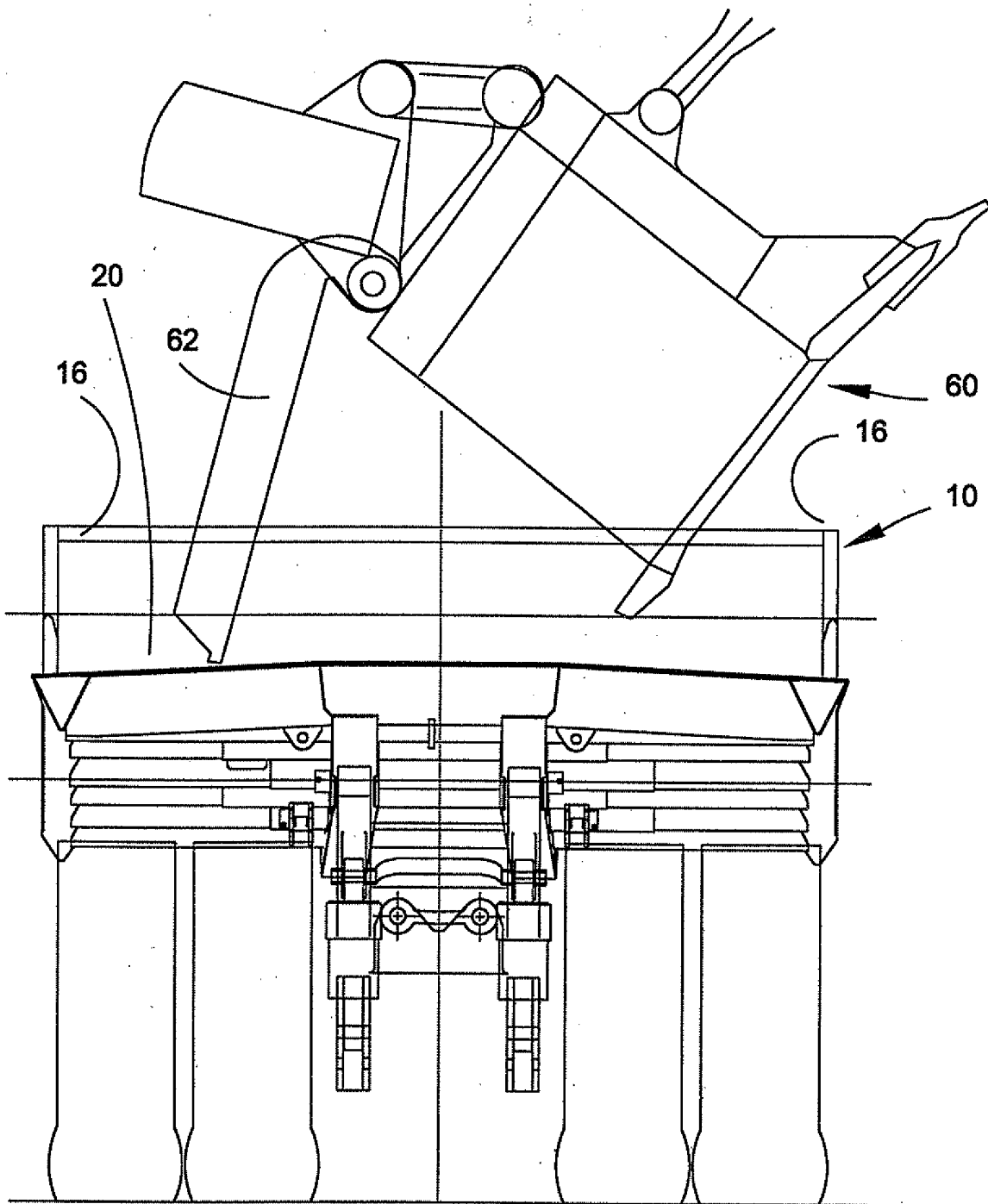


Fig. 24

Fig. 25

